Amendments to the Claims

The following Listing of Claims replaces all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (currently amended): A method of organizing a collection of objects arranged in a sequence ordered in accordance with a selected dimension of context-related metadata respectively associated with the objects, comprising operating a processor to perform operations comprising:

classifying the objects in the sequence to generate a series of object clusters, wherein the classifying comprises sequentially processing each of the objects as a respective candidate for segmentation into a respective current one of the object clusters in the series and, for each of the candidate objects,

determining a candidate object interval separating the candidate object from an adjacent object in the sequence already segmented into the current object cluster, the candidate object interval being measured in the selected dimension of the context-related metadata,

comparing the candidate object interval to a weighted measure of cluster extent for the current object cluster, the measure of cluster extent corresponding to a current distance spanned by all the objects in the current object cluster measured in the selected dimension of the context-related metadata, and

comparing the candidate object interval to a weighted measure of object density for the current object cluster, the measure of object density corresponding to a measure of distribution of distances separating adjacent ones of the objects in the current object cluster measured in the selected dimension of the context-related metadata.

Claim 2 (previously presented): The method of claim 1, wherein the measure of cluster extent for each current object cluster corresponds to a temporal distance spanned by recorded generation times associated with all objects in the current object cluster.

Claim 3 (previously presented): The method of claim 1, wherein the measure of cluster extent for each current object cluster corresponds to a spatial distance spanned by recorded generation locations associated with all objects in the current object cluster.

Claim 4 (previously presented): The method of claim 1, wherein the measure of object density for each current object cluster corresponds to an average temporal distance separating adjacent objects in the current object cluster.

Claim 5 (previously presented): The method of claim 1, wherein the measure of object density for each current object cluster corresponds to an average spatial distance separating adjacent objects in the current object cluster.

Claim 6 (previously presented): The method of claim 1, wherein the classifying comprises merging consecutive ones of the candidate objects into a current one of the object clusters until the candidate object interval determined for a current one of the candidate objects exceeds the weighted measure of cluster extent for the current cluster, at which point a successive one of the object clusters in the series is initiated with the current candidate object.

Claim 7 (previously presented): The method of claim 1, wherein the classifying comprises merging consecutive ones of the candidate objects into a current one of the object clusters until the candidate object interval determined for a current one of the candidate objects exceeds the weighted measure of object density for the current object cluster, at which point a successive one of the object clusters in the series is initiated with the current candidate object.

Claim 8 (previously presented): The method of claim 1, wherein the processing comprises determining the weighted measures of cluster extent by applying to the measures of cluster extent respective weights that decrease with increasing sizes of the respective object clusters.

Claim 9 (previously presented): The method of claim 1, wherein the processing comprises determining the weighted measures of cluster extent by applying to the measures of cluster extent respective weights that decrease with increasing sizes of the respective object clusters.

Claim 10 (previously presented): The method of claim 1, further comprising customizing at least one of the weights applied to the measures of cluster extent based on an analysis of objects in the corresponding object cluster.

Claim 11 (previously presented): The method of claim 10, wherein the customizing comprises scaling at least one of the weights applied to the measures of cluster extent based on a fractal dimension estimate of recorded time generation meta data associated with the objects in the collection.

Claim 12 (previously presented): The method of claim 1, further comprising customizing at least one of the weights applied to the measures of cluster object density based on an analysis of objects in the corresponding object cluster.

Claim 13 (previously presented): The method of claim 12, wherein the customizing comprises scaling at least one of the weights applied to the measures of cluster extent based on a fractal dimension estimate of recorded time generation meta data associated with the objects in the collection.

Claim 14 (previously presented): The method of claim 1, wherein the processing further comprises comparing the object density of a candidate object cluster consisting of the current object cluster and the candidate object with the weighted measure of object density for the current object cluster.

Claim 15 (previously presented): The method of claim 14, wherein the measure of object density for each current object cluster corresponds to an average temporal distance separating adjacent objects in the current object cluster.

Claim 16 (previously presented): The method of claim 14, wherein the measure of object density for each current object cluster corresponds to an average spatial distance separating adjacent objects in the current object cluster.

Claim 17 (previously presented): The method of claim 14, wherein the measure of object density for each object cluster corresponds to a moving average distance separating adjacent objects in the current object cluster.

Claim 18 (previously presented): The method of claim 14, wherein the processing comprises determining the weighted measures of cluster extent by applying to the measures of cluster extent respective weights that decrease with increasing sizes of the respective object clusters.

Claim 19 (previously presented): The method of claim 1, wherein the processing comprises processing each of the candidate objects sequentially beginning at a first end of the object sequence.

Claim 20 (previously presented): The method of claim 19, wherein the processing further comprises processing each of the candidate objects sequentially beginning at a second end of the object sequence opposite the first end.

Claim 21 (previously presented): The method of claim 1, wherein the sequence to be segmented includes objects of the following types: text, audio, graphics, still images, video and business events.

Claim 22 (currently amended): A system of organizing a collection of objects arranged in a sequence ordered in accordance with a selected dimension of context-related metadata respectively associated with the objects, comprising:

a computer-readable medium storing computer-readable instructions; and

a data processing unit coupled to the memory, operable to execute the instructions, and based at least in part on the execution of the instructions operable to perform operations comprising

~~a segmentation engine operable to classify~~classifying the objects in the sequence to generate a series of object clusters, wherein the segmentation engine is operable to sequentially process each of the objects as a respective candidate for segmentation into a respective current one of the object clusters in the series and, for each of the candidate objects, perform operations comprising

determining a candidate object interval separating the candidate object from an adjacent object in the sequence already segmented into the current object cluster, the candidate object interval being measured in the selected dimension of the context-related metadata,

compare the candidate object interval to a weighted measure of cluster extent for the current object cluster, the measure of cluster extent corresponding to a current distance spanned by all the objects in the current object cluster measured in the selected dimension of the context-related metadata, and

comparing the candidate object interval to a weighted measure of cluster object density for the current object cluster, the measure of object density corresponding to a measure of distribution of distances separating adjacent ones of the objects in the current object cluster measured in the selected dimension of the context-related metadata.

Claim 23 (currently amended): A method of organizing a collection of objects, comprising operating a processor to perform operations comprising:

segmenting objects from the collection into clusters;

extracting context-related meta data corresponding to object generation locations associated with the objects and parsable into multiple levels of a name hierarchy; and

assigning names to clusters based on the extracted context-related meta data corresponding to a level of the name hierarchy selected to distinguish segmented clusters from one another.

Claims 24-26 (canceled)

Claim 27 (currently amended): The method of claim ~~26~~23, wherein the context-related meta data corresponds to recorded information relating to country, city, and state of object generation.

Claim 28 (original): The method of claim 23, wherein the context-related meta data corresponds to both object generation times and object generation locations.

Claim 29 (original): The method of claim 23, further comprising automatically naming objects in a given cluster based on the name assigned to the given cluster.

Claim 30 (original): The method of claim 29, wherein the objects in the given cluster are named automatically in accordance with a chronological ordering of the objects in the given cluster.

Claim 31 (original): The method of claim 29, further comprising storing objects in the given cluster in a tree structure organized by cluster and labeled in accordance with the assigned names.

Claim 32 (currently amended): A system of organizing a collection of objects, comprising:

a computer-readable medium storing computer-readable instructions; and

a data processing unit coupled to the memory, operable to execute the instructions, and based at least in part on the execution of the instructions operable to perform operations comprising

~~a segmentation engine operable to segment~~segmenting objects from the collection into clusters; and

~~a naming engine operable to extract~~extracting context-related meta data corresponding to object generation locations associated with the objects and parsable into multiple levels of a name hierarchy, and assign names to each cluster based on the extracted context-related meta data corresponding to a level of the name hierarchy selected to distinguish segmented clusters from one another.

Claim 33 (currently amended): A method of organizing a collection of objects, comprising operating a processor to perform operations comprising:

accessing a sequence of objects segmented into clusters each including multiple constituent objects arranged in a respective sequence in accordance with context-related meta data associated with the objects;

selecting for each object cluster at least two constituent objects representative of beginning and ending instances in the corresponding object sequence; and

in a user interface, graphically presenting the selected representative objects of each cluster without graphically presenting representations of unselected ones of the constituent objects of the clusters.

Claim 34 (previously presented): The method of claim 33, further comprising graphically presenting a selected one of the clusters as a stack of partially overlapping images representative of multiple objects in the selected cluster.

Claim 35 (previously presented): The method of claim 34, further comprising revealing an increased portion of a given one of the representative images in the stack in response to detection of a user-controlled display icon positioned over the given representative image.

Claim 36 (previously presented): The method of claim 33, wherein the presenting comprises presenting the selected representative objects with the spacing between adjacent ones of the selected representative objects in the same cluster smaller than the spacing between adjacent ones of the selected representative objects in different clusters.

Claim 37 (original): The method of claim 33, further comprising merging objects of one cluster into an adjacent cluster in response to user input.

Claim 38 (original): The method of claim 37, wherein objects of one cluster are merged into an adjacent cluster in response to dragging and dropping of the objects to be merged.

Claim 39 (original): The method of claim 37, wherein the objects of the one cluster are merged into the adjacent cluster in response to user selection of an icon for merging the clusters.

Claim 40 (original): The method of claim 33, further comprising presenting a graphical representation of distributions of objects in the clusters.

Claim 41 (original): The method of claim 40, wherein a object distribution for a given cluster is presented as object instances plotted along an axis corresponding to a scaled representation of the context-related extent spanned by the given cluster.

Claim 42 (original): The method of claim 40, further comprising splitting a given cluster in response to user selection of a point in the representation of the object distribution presented for the given cluster.

Claim 43 (original): The method of claim 40, further comprising automatically splitting a given cluster into two or more clusters in response to user input.

Claim 44 (original): The method of claim 43, wherein the given cluster is automatically split into a user-selected number of sub-clusters.

Claim 45 (original): The method of claim 43, wherein the given cluster is automatically split based on relative sizes of intervals between successive objects in the given cluster.

Claim 46 (original): The method of claim 33, wherein the context-related meta data corresponds to object generation times.

Claim 47 (original): The method of claim 33, wherein the context-related meta data corresponds to object generation locations.

Claim 48 (original: The method of claim 33, wherein the segmented sequence includes objects of the following types: text, audio, graphics, still images, video, and business events.

Claim 49 (original): The method of claim 33, further comprising graphically presenting at least one link to an object of a cluster arranged in a sequence in accordance with time-related meta data in a calendar format.

Claim 50 (original): The method of claim 33, further comprising graphically presenting at least one link to an object of a cluster arranged in a sequence in accordance with location-related meta data in a map format.

Claim 51 (currently amended): A system of organizing a collection of objects, ~~comprising a user interface layout engine operable to perform operations~~ comprising:

a computer-readable medium storing computer-readable instructions; and

a data processing unit coupled to the memory, operable to execute the instructions, and based at least in part on the execution of the instructions operable to perform operations comprising

accessing a sequence of objects from the collection segmented into clusters each including multiple objects arranged in a respective sequence in accordance with context-related meta data associated with the objects;

selecting for each object cluster at least two constituent objects representative of beginning and ending instances in the corresponding object sequence; and

in a user interface, graphically presenting the selected representative objects of each cluster on a screen without graphically presenting representations of unselected ones of the constituent objects of the clusters, wherein the user interface layout engine presents the selected representative objects with the spacing between adjacent ones of the selected representative objects in the same cluster smaller than the spacing between adjacent ones of the selected representative objects in different clusters.